

REMARKS

Upon entry of this amendment, newly presented claims 40-45 shall be pending. Original claims 1-45 have been deleted.

Claims 1-39 as originally filed were rejected as being anticipated or otherwise unpatentable in view of Nelson et al, Rogers, and Pope, taken alone or in combination. This rejection has been rendered moot in view of the cancellation by applicant of original claims 1-39. Newly presented claims 40-45 are introduced which are believed to better describe that which applicant regards as its invention, as well as to reduce the issues under consideration.

Each of newly presented claims 40, 42 and 44 are directed to an improved frequency synthesizer architecture. The claims are all related in that each recites a frequency synthesizer defined by:

a voltage controlled oscillator including a configurable tail current source having a number of switched unit current sources;

a phase locked loop to control a frequency of an oscillating signal of the voltage controlled oscillator; and

an amplitude calibration unit to calibrate the configurable tail current source when the phase locked loop is disabled to achieve a desired amplitude for the oscillating signal,

the amplitude calibration unit detecting a voltage amplitude of the voltage controlled oscillator and adjusting the configurable tail current source by activating a subset of the switched unit current sources to achieve the desired voltage amplitude,

wherein the activating involves de-activating switched unit current sources in discrete steps until the voltage amplitude falls below a target, the target being variably selectable on the basis of a current mode of operation.

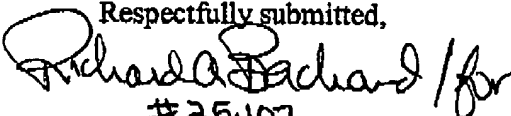
Attorney Docket No. 010482

In independent claims 42 and 44, the synthesizer above is recited as having variant external VCO configurations, but are otherwise similar in scope to independent claim 40.

None of the cited references teach or suggest a frequency synthesizer configured as recited in the newly presented claims. Accordingly, all of the newly presented claims are believed to be patentable.

If a fee is required for an extension of time under 37 C.F.R. 1.136 not accounted for, such an extension is requested and the fee should also be charged to our Deposit Account. A duplicate copy of this page is enclosed.

Dated: 6/15/05
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